
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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LEAD IN SEPTEMBER 1996

Primary and secondary refinery production in September were up by about 3% and 4%, respectively. Total production of refined lead, primary plus secondary, through the first 9 months of 1996 was about 1% more than production in same period of 1995. Reported consumption in September decreased by about 4% compared with that of revised consumption data for August.

According to Platt's Metals Week published quotations, the average North American producer price and the average London Metal Exchange (LME) cash price decreased by 0.04% and 2.36%, respectively, in September, each losing about one-half of the price increase that occurred in August.

National Defense Stockpile cash disposal (sale) of lead in September 1996 was 400 metric tons (441 short tons). Sale of lead in fiscal year 1996 (October 1995 through September 1996) was 30,368 metric tons (33,475 short tons).

General Smelting and Refining, Inc., College Grove, TN, plans to build a new secondary lead smelter to replace the current facility, effectively doubling the company's lead production capacity to about 27,000 metric tons annually. Application for a permit to build the new plant was forwarded to State and local authorities as well as to the U.S. Environmental Protection Agency. Pending receipt of the required permits, it was anticipated that the new plant could be in operation within 2 years.¹

The Doe Run Company's wholly owned subsidiary, Fabricated Products Inc., St. Louis, MO, recently purchased Seafab Metal Corp., Seattle, WA. Seafab is a leading producer of lead oxide and fabricated lead products on the United States' west coast. According to a Doe Run spokesman, the transaction will allow Doe Run to continue to develop its strategic expansion into downstream value-added lead products. Seafab's current operation at the Port of Seattle will be forced to relocate in the near future, in order for the port to expand its container-

handling capability. Although a relocation site has not been determined, it is expected that it will be situated more closely to Seafab's major west coast customers.²

Asset Recovery, Inc., a financial investment and property management company in Wichita, KS, recently received approval from Oklahoma's Department of Environmental Quality to build a secondary lead smelter near Muskogee, OK. Construction of the plant is expected to start by the end of the year, with production scheduled to begin by late 1997 or early 1998. The smelter facility will have the capacity to process about 15,000 spent lead-acid batteries per day, producing approximately 50,000 metric tons of secondary lead annually.³

Gold Fields Namibia Ltd.'s primary lead smelter in Tsumeb, Namibia, remained closed as a result of a month-long conflict between miners and management at the property. The smelter had been closed for upgrading in early August, but damages subsequently incurred at the facility during the conflict prevented it from being restarted as originally planned. An assessment of the damages to the facility will be required before a schedule for resumption of operations at Tsumeb can be determined. Production capacity of the smelter is about 25,000 metric tons of lead annually.⁴

The Australian miner, Western Metals, reported the discovery of additional resources at the Cadjebut zinc-lead mine in Western Australia that are likely to extend the life of the mine another 4 years. Although exploration drilling had only just begun, initial drilling results just south of the existing mine revealed a new ore zone containing 250,000 metric tons of resources, grading 11% zinc and 2% lead. Current production from the Cadjebut Mine is about 63,000 metric tons of zinc and 16,000 metric tons of lead in concentrate annually.⁵

The Metal Mining Agency of Japan (MMAJ) has reported the discovery of a significant, high-grade sulphide deposit in Japan's

territorial waters west of the island of Okinawa. The hydrothermal deposit, in the form of sulphide mounds, was found to contain an average 7.7% zinc, 4% lead, and appreciable quantities of gold, silver and copper. The deposit covered an area of 660,000 square meters in the 1,600-meter-deep Okinawa Trough. Scientists at MMAJ stated, however, that development of such a deposit may be more difficult than that of manganese sea nodules, for which experimental recovery and environmental impact studies have already been completed.⁶

Centromin, Peru's state mining and smelting company, was unsuccessful in its initial efforts to sell the Yauricocha polymetallic mine, Yauyos, Lima Department. The sale of this currently operating mine, part of Peru's ongoing privatization program, attracted a number of interested buyers but no firm offers were received by the closing date of September 9, 1996. Officials with Peru's Ministry of Energy and Mines subsequently

declared void the original tender for the property, but did not indicate when it might be offered for sale again.⁷

¹American Metal Market. New Lead Smelter Planned. V. 104, No. 176, Sept. 11, 1996, p. 6.

²_____. Doe Run Unit Buys Out Seafab. V. 104, No. 177, Sept. 12, 1996, p. 1.

³_____. Secondary Lead Smelter Gets Environmental OK. V. 104, No. 188, Sept. 27, 1996, p. 7.

⁴Platt's Metals Week. No Restart Date For Tsumeb Pb Smelter. V. 67, No. 38, Sept. 23, 1996, p. 9.

⁵Metal Bulletin. Western Metals Increases Life of Cadjebut Mine. No. 8109, Sept. 5, 1996, p. 5.

⁶Mining Journal, London. Massive Sulphides Found Off Japan. V. 327, No. 8395, September 13, 1996, p. 204.

⁷_____. No Takers For Yauricocha. V. 327, No. 8395, Sept. 13, 1996, p. 202.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES 1/

(Metric tons)

	1995 p/		1996		
	Year total	Jan. - Sept.	Aug.	Sept.	Jan. - Sept.
Production:					
Mine (recoverable)	384,000	287,000	34,100	32,800	317,000
Primary refinery 2/	374,000	282,000	24,700	25,400	249,000
Secondary refinery:					
Reported by smelters/refineries	737,000	546,000	86,300	89,400	725,000
Estimated	193,000	143,000 r/	1,420	1,510	11,200
Recovered from copper-base scrap e/	15,000	11,300	1,250	1,250	11,300
Total secondary	945,000	700,000	89,000	92,100	747,000
Stocks, end of period:					
Primary refineries 2/	XX	XX	14,200	12,300	XX
Secondary smelters and consumers	XX	XX	40,400 r/	40,200	XX
Imports for consumption:					
Ore and concentrates (lead content)	2,590	2,590	234	NA	3,350 3/
Refined metal	264,000	190,000	22,100	NA	164,000 3/
Consumption:					
Reported	852,000	635,000	107,000 r/	102,000	897,000 4/
Undistributed e/	522,000	389,000	39,500 r/	37,900	332,000 4/
Total	1,370,000	1,020,000	146,000 r/	140,000	1,230,000 4/
Exports (lead content):					
Ore and concentrates	65,500	44,800	22,200	NA	35,900 3/
Materials excluding scrap	57,200	43,300	15,000	NA	72,600 3/
Ash and residues	8,040	3,420	1,060	NA	10,400 3/
TEL/TML preparations, based on lead compounds	3,210	2,580	1,450	NA	1,990 3/
Exports (gross weight): Scrap	105,000	77,200	--	NA	-- 3/
Platt's Metals Week North American producer price (cents per pound)	42.28	41.73	49.59	49.57	48.85

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices; may not add to totals shown.

2/ Data from American Bureau of Metal Statistics, Inc. (ABMS).

3/ Includes data for January-August only; September data not available at time of publication.

4/ Includes revised data from previous months.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price cents/lb	LME		Sterling exchange rate dollars/£
		\$/metric ton	£/metric ton	
1995:				
September	41.93	592.33	379.95	1.558970
Average Jan. - Sept.	41.73	609.27	384.66	1.584133
Year average	42.28	630.53 r/	399.53 r/	1.578176
1996:				
June	49.85	796.09	516.41	1.541590
July	49.48	783.24	504.34	1.553005
August	49.59	815.23	525.99	1.549882
September	49.57	795.96	510.47	1.559290
Average Jan. - Sept.	48.85	793.38	516.50	1.536315

r/ Revised.

Source: Platt's Metals Week.

TABLE 3
MINE PRODUCTION OF RECOVERABLE LEAD IN THE UNITED STATES 1/

(Metric tons)

	1995 p/		1996		
	Year total	Jan. - Sept.	Aug.	Sept.	Jan. - Sept.
Missouri	290,000	268,000 r/ 2/	31,600 2/	30,900 2/	295,000 2/
Other States 3/	93,900 2/	19,500 r/	2,430	1,960	22,800
Total	384,000	287,000	34,100	32,800	317,000
Daily average 4/	1,050	1,050	1,100	1,090	1,160

p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes Alaska.

3/ Includes Colorado, Idaho, Montana, and New York.

4/ Based on number of days in period without adjustment for Sundays or holidays.

TABLE 4
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN SEPTEMBER 1996 1/

(Metric tons, gross weight)

Item	Stocks	Net	Consumption	Stocks
	Aug. 31, 1996			Sept. 30, 1996
Battery-lead	40,100 r/	117,000	116,000	40,300
Soft lead	W	W	W	W
Drosses and residues	1,410 r/	4,090	4,390	1,110
Other 2/	2,010	3,540	4,530	1,020
Total	43,500 r/	124,000	125,000	42,500
Percent change from preceding month	--	+9.4	+10.5	-2.5

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap not elsewhere classified.

TABLE 5
LEAD, TIN, AND ANTIMONY RECOVERED FROM LEAD-BASE
SCRAP IN SEPTEMBER 1996 1/

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	43,200	--	--
Remelt lead	W	W	W
Antimonial lead	41,300	W	W
Other 2/	W	W	--
Total lead-base	89,400	34	542

W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits.

2/ Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 6
CONSUMPTION OF LEAD IN THE UNITED STATES 1/

(Metric tons)

Uses	1995		1996		
	Jan. - Dec.	p/ Jan. - Sept.	Aug.	Sept.	Jan. - Sept.
Metal products:					
Ammunition-shot and bullets	52,500	42,000	4,500 r/	3,380	31,500
Brass and bronze-billet and ingots	6,110	4,670	500	506	4,580
Cable covering-power and communication and calking lead-building construction	5,600	4,260	618 r/	708	4,800
Casting metals	1,240	W	113	126	1,080
Pipes, traps, and other extruded products	912	694	(2/)	(2/)	(2/)
Sheet lead	11,100	8,170	790	762	7,260
Solder	6,250	4,390	462 r/	367	4,340
Storage batteries, including oxides	700,000	527,000	98,600 r/	95,700	829,000 3/
Terne metal, type metal, and other metal products 4/	5,500	5,060	364 r/	127	3,300
Total metal products	789,000	596,000	106,000 r/	102,000	886,000
Other oxides	44,700	34,000	(5/)	(5/)	(5/)
Miscellaneous uses including gasoline additives	18,200	4,970	808 r/	818	11,000
Total reported	852,000	635,000	107,000 r/	102,000	897,000 3/
Undistributed consumption e/	522,000	389,000	39,500 r/	37,900	332,000 3/
Grand total	1,370,000	1,020,000	146,000 r/	140,000	1,230,000 3/

e/ Estimated. p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Terne metal, type metal, and other metal products."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Withheld to avoid disclosing company proprietary data; included in "Sheet lead."

3/ Includes revised data from previous months.

4/ Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

5/ Withheld to avoid disclosing company proprietary data; included in "Miscellaneous uses including gasoline additives."

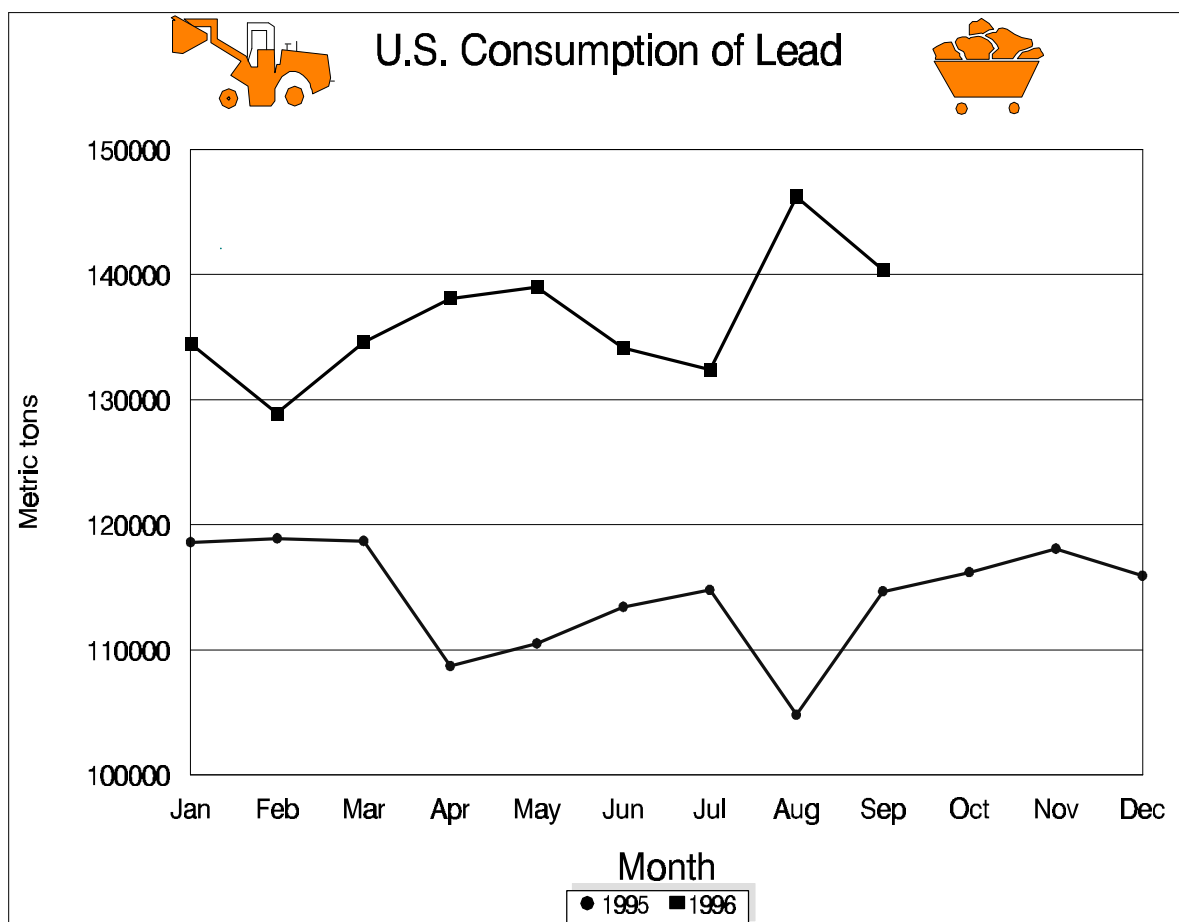


TABLE 7
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND
CONSUMPTION OF LEAD IN SEPTEMBER 1996 1/

(Metric tons, lead content)

Type of material	Stocks Aug. 31, 1996 r/	Net receipts	Consumption	Stocks Sept. 30, 1996
Soft lead	16,600	55,200	55,300	16,500
Antimonial lead	31,100	28,400	28,100	31,400
Lead alloys	W	18,500	18,700	W
Copper-base scrap	W	430	430	W
Total	52,200	102,000	102,000	52,200

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 8
CONSUMPTION OF LEAD BY CLASS OF PRODUCT AND
TYPE OF MATERIAL IN SEPTEMBER 1996 1/

(Metric tons, lead content)

Class of product	Soft lead	Antimonial lead	Lead alloys	Copper-base scrap	Total
Metal products	54,700	28,100	18,700	430	102,000
Other oxides 2/	W	--	--	--	W
Miscellaneous uses	572	W	W	--	572
Total	55,300	28,100	18,700	430	102,000

W Withheld to avoid disclosing company proprietary data; included in "Metal products."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes ceramic products, glass, other pigments and chemicals, and paints.

TABLE 9
U.S. EXPORTS OF LEAD, BY CLASS 1/

(Metric tons)

	1995		1996		
	Year total	Aug.	July	Aug.	Jan. - Aug.
Lead content:					
Ore and concentrates	65,500	13,200	10,900	22,200	35,900
Materials excluding scrap	57,200	4,810	6,800	15,000	72,600
Ash and residues	8,040	311	2,850	1,060	10,400
TEL/TML preparations, based on lead compounds	3,210	99	103	1,450	1,990
Total	134,000	18,400	20,600	39,700	121,000
Gross weight: Scrap	105,000	11,700	--	--	--

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 10
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN 1/

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	1995 p/		1996			1995 p/		1996		
	Year total	Jan. - Aug.	July	Aug.	Jan. - Aug.	Year total	Jan. - Aug.	July	Aug.	Jan. - Aug.
Ore, matte, etc.:										
Australia	1,480	1,480	--	--	--	--	--	--	--	--
Bolivia	759	360	4	--	282	--	--	--	--	--
Canada	106,000	6,790	32,200	27,600	244,000	--	--	(2/)	--	2,370
Mexico	2,380	2,380	1,050	234	1,680	2,380	2,380	235	234	859
Peru	12,800	8,940	2,340	1,560	11,500	88	88	--	--	--
Other	984	350	11	--	133	126	72	--	--	122
Total	124,000	20,300	35,600	29,400	258,000	2,590	2,540	235	234	3,350
Base bullion:										
Mexico	31	27	--	--	--	31	27	--	--	--
Total	31	27	--	--	--	31	27	--	--	--
Pigs and bars:										
Belgium	25	25	--	--	--	25	25	--	--	--
Bulgaria	1,910	1,910	--	--	--	1,910	1,910	--	--	--
Canada	182,000	112,000	14,200	15,600	115,000	182,000	112,000	14,200	15,600	115,000
Germany	3,140	1,760	--	14	133	3,140	1,760	--	14	133
Mexico	54,300	37,100	3,360	3,390	34,500	54,300	37,100	3,360	3,390	34,500
Netherlands	42	42	--	--	--	42	42	--	--	--
Peru	22,100	11,000	1,670	2,950	14,200	22,100	11,000	1,670	2,950	14,200
Sweden	5	5	--	--	--	5	5	--	--	--
United Arab Emirates	210	189	26	--	109	210	189	26	--	109
United Kingdom	128	113	--	--	--	128	113	--	--	--
Venezuela	364	364	--	--	--	364	364	--	--	--
Other	242	238	165	74	304	242	238	165	74	304
Total	264,000	165,000	19,400	22,100	164,000	264,000	165,000	19,400	22,100	164,000
Reclaimed scrap, including ash and residues	75	18	--	12	171	75	18	--	12	171
Grand total	388,000	185,000	55,000	51,400	422,000	267,000	167,000	19,600	22,300	168,000

p/ Preliminary.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.